

8/30/13

- Homework
- Section 1.2 - Segment Measuring & Addition
- Start homework
- Quiz next Thursday

Section 1.2 Use of Segments and Congruence  
Targets D & E

**GOAL USE SEGMENT POSTULATES TO IDENTIFY CONGRUENT SEGMENTS**

- Postulate or Axiom - A rule that is accepted without proof.

**Ruler Postulate:**

The points on a line can be matched one to one with the real numbers. The real number that corresponds to a point is called the coordinate of the point.

The distance between points A and B, written as AB, is the absolute value of the difference of the coordinates of A and B.

In other words...

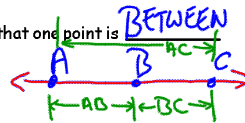
Measure the following

$$\frac{16\text{ in}}{40\text{ cm}}$$

$$\frac{9\text{ in}}{23\text{ cm}}$$

$$\frac{15\text{ in}}{37.9\text{ cm}}$$

When three points are collinear, you can say that one point is BETWEEN the other two.



**Segment Addition Postulate:**

If B is between A and C, then  $AB + BC = AC$ .

Likewise, if  $AB + BC = AC$ , then we know that B is BETWEEN A and C.

Diagram: D — E — F

$$DE + EF = DF$$

$$1\frac{3}{4} + 1\frac{1}{4} = DF$$

$$3\text{ in.} = DF$$

Diagram: X — Y — Z

$$XZ = 7\text{ cm}$$

$$YZ = 5\text{ cm}$$

FIND XY

$$XY + YZ = XZ$$

$$XY + 5\text{ cm} = 7\text{ cm}$$

$$\begin{array}{r} -5\text{ cm} \\ \hline \end{array}$$

$$XY = 2\text{ cm.}$$

Diagram: A — B — C

$$AB + BC = AC$$

$$4x + 2x + 2 = 26$$

$$\begin{array}{r} 6x + 2 = 26 \\ -2 \quad -2 \\ \hline 6x = 24 \\ \frac{6}{6} \quad \frac{6}{6} \\ \hline x = 4 \end{array}$$

FIND AB

$$AB = 4x$$

$$AB = 4(4)$$

$$AB = 16$$

